State Revolving Fund Loan Programs

Drinking Water, Wastewater, Nonpoint Source

ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

TOWN OF SCHERERVILLE
WWTP AND COLLECTION SYSTEM UPGRADES
SRF PROJECT WW 09 60 45 01

DATE: August 14, 2009

TARGET PROJECT APPROVAL DATE: September 13, 2009

I. INTRODUCTION

The above entity has applied to the Clean Water State Revolving Loan Fund (SRF) for a loan to finance all or part of the waste water project described in the accompanying Environmental Assessment (EA). As part of facilities planning requirements, an environmental review has been completed which addresses the project's impacts on the natural and human environment. This review is summarized in the attached EA.

II. PRELIMINARY FINDING OF NO SIGNIFICANT IMPACT (FNSI)

The SRF Clean Water Program has evaluated all pertinent environmental information regarding the proposed project and determined that an Environmental Impact Statement is not necessary. Subject to responses received during the 30-day public comment period, and pursuant to Indiana Code 4-4-11, it is our preliminary finding that the construction and operation of the proposed facilities will result in no significant adverse environmental impact. In the absence of significant comments, the attached EA shall serve as the final environmental document.

III. COMMENTS

All interested parties may comment upon the EA/FNSI. Comments must be received at the address below by the deadline date above. Significant comments may prompt a reevaluation of the preliminary FNSI; if appropriate, a new FNSI will be issued for another 30-day public comment period. A final decision to proceed, or not to proceed, with the proposed project shall be effected by finalizing, or not finalizing, the FNSI as appropriate. Comments regarding this document should be sent within 30 days to:

Amy Henninger
Senior Environmental Manager
State Revolving Fund -- IGCN 1275
100 N. Senate Ave.
Indianapolis, IN 46204
317-232-6566

ENVIRONMENTAL ASSESSMENT

I. PROJECT IDENTIFICATION

Project Name and Address:	Town of Schererville Waste Water Treatment Plant and Collection System Upgrades 10 East Joliet Street Schererville, IN 46375
SRF Project Number:	WW 09 60 45 01
Authorized Representative:	Robert Volkmann, Town Manager

II. PROJECT LOCATION

The Town of Schererville is located in Lake County, in the northwest region of the state.

Manhole Rehabilitation Project: The proposed project is located in the Schererville Heights Lift Station sanitary collection area. The site is in Township 35 North, Range 9 West, Sections 23, 25, and 26, of the St. John USGS Quadrangle map. See Figure A1 & A2.

Southeast Sanitary Interceptor Sewer – Project 2: The proposed project is located in the Schererville Heights Lift Station sanitary collection area. The site is in Township 35 North, Range 9 West, Section 23, of the St. John USGS Quadrangle map. See Figure B1.

WWTP – Headworks Improvements, Aerobic Digester Replacement, Secondary Anaerobic Digester Rehabilitation/Conversion and Primary Tank Sludge Pumping Upgrades, and Aeration Tanks 1-4 Rehabilitation: The proposed projects are located at the Schererville Waste Water Treatment Plant, 550 Kaeser Blvd. The site is located at Township 35 North, Range 9 West, Section 9 of the Highland USGS Quadrangle map. See Figure C1.

III. PROJECT NEED AND PURPOSE

Manhole Rehabilitation Project: The manhole rehabilitation project is intended to address existing inflow and infiltration problems within the project area, with the goal of reducing sanitary sewer overflows and operating costs at the treatment plant.

Southeast Sanitary Interceptor Sewer – Project 2: The Schererville Heights service area currently experiences sanitary sewer overflows during substantial rain events because of insufficient wet weather pumping and storage capacity at the Schererville Heights Lift Station. As a result, the Indiana Department of Environmental Management has issued Inspection Summary/Notice of Violation letters. The sanitary interceptor sewer project will eliminate the Schererville Heights Lift Station, while addressing SSO events currently experienced in the area.

Headworks Improvements: The existing raw sewage pumps have insufficient firm pumping capacity during peak periods of flow. The existing standby generator is capable of powering only 3 of the 5 existing raw sewage pumps. The existing screening and grit collection system has insufficient capacity during periods of peak flows. The proposed headwork improvements will address these current deficiencies and improve overall plant operation.

Aerobic Digester Replacement: The current aerobic digester facility provides inadequate detention time for necessary stabilization of volatile solids. The steel tank's sides and partition walls are structurally failing. The proposed aerobic digestion facility will allow for adequate detention time for stabilization. The facility will provide a gravity belt thickener, to reduce sludge volume. Finally, the new facility will allow for indoor loading of sludge, previously done outside and complicated during winter months.

Secondary Anaerobic Digester Rehabilitation/Conversion and Primary Tank Sludge Pumping Upgrades: Current sludge production substantially exceeds anaerobic digestion capacity at the treatment facility. By converting the existing secondary digester to a primary digester, sludge stabilization capacity at the facility will be greatly increased. This will allow for sludge to be sufficiently stabilized and made suitable for land application.

Aeration Tanks 1-4 Rehabilitation: These current aeration tanks have medium bubbler diffusers which have very low oxygen transfer efficiency. To increase the increase the oxygen transfer this aeration oxygen transfer system must be completely replaced.

IV. PROJECT DESCRIPTION

Manhole Rehabilitation Project: Twenty-one manholes are designated for rehabilitation that will be either rehabbed through raising the castings with external chimney seals or interlining manholes with a silicone modified polyurea barrier coat.

Southeast Sanitary Interceptor Sewer – Project 2: Installation of approximately 7,572 feet of 10-inch to 36-inch sanitary sewer.

Headworks Improvements:

- New circular grit chamber, grit classifier, and grit dewatering
- Fine screening equipment and washer
- Adjustable speed drives for 3 of the 5 existing raw sewage pumps
- New Generator
- Higher capacity Parshall Flume
- Expansion of facility capacity

Aerobic Digester Replacement:

- Construction of 4 cell aerobic digester
- 2 meter gravity belt thickener
- Relocation of the existing belt filter press
- New polymer systems
- Container loading facilities

Secondary Anaerobic Digester Rehabilitation/Conversion and Primary Tank Sludge Pumping Upgrades: The existing secondary anaerobic digester will be converted to a primary anaerobic digester through piping and mixing improvements. Additional upgrades include a new gasholder cover for the secondary digester, a new sludge heater, a waste gas burner and installation of new air operated diaphragm sludge pumps at the two circular primary tanks.

Aeration Tanks 1-4 Rehabilitation: The aeration tank dissolved oxygen transfer system will be completely replaced with fine bubble diffusers including new air piping, D.O. probe and meters, along with better flow controls for increased mixing and operational efficiencies.

V. Estimated Project Costs, Affordability and Funding

A. Selected Plan Estimated Cost Summary

Construction Costs

Manhole Rehabilitation Project

Manhole Lining		$ 46,750
Casting Frame and Lid		1,950
External Chimney Seal		5,500
24" Diameter Riser Rings		1,750
Restoration		5,000
	Total	$ 60,950

Southeast Sanitary Interceptor Sewer – Project 2

Mobilization/Demobilization	$ 93,000
Construction Engineering	20,000
Clearing Right of Way	60,500
Maintenance of Traffic	29,000
6,915 LF of 36" PVC Sanitary Sewer	1,078,740
70 LF of 36" DIP PC 150 Sanitary Sewer	19,950
14 LF of 24" PVC Sanitary Sewer	1,960
560 LF of 15" PVC Sanitary Sewer	32,480
13 LF of 10" PVC Sanitary Sewer	650
72" Sanitary Manholes	23,670
60" Sanitary Manholes	138,400
48" Sanitary Manholes	23,280
Remove Existing Pavement	10,640

Saw Cutting		3,500
Remove Existing PCC Curb		2,100
Install Standard PCC Curb		6,000
B Burrow for Structural Backfill		150,000
10" Aggregate Base		47,498
HAC Intermediate Binder		33,000
HAC Surface		19,250
Additional Excavation		6,300
Additional Structural Backfill		7,650
2" Limestone Structural Pipe Base		11,250
Lawn Restoration		35,000
Testing Pipe and Manholes		22,700
	Total	$ 1,876,518

Headworks Improvements

Mobilization		$ 75,000
Concrete and Structure		664,000
Screens and Compactor		348,000
Grit Collector, Cyclone, Separator		116,000
Electrical, including Generator		445,000
Parshall Flume and Diversion Structure		115,000
Upgrade Existing Raw Sewage Pumps		146,000
Outside Piping and Conduits		210,000
Raw Sewage Pump Discharge Header		96,000
Site Paving, Grading, Seeding		49,000
Demolition of Existing Structures		24,000
	Sub Total	$ 2,288,000
	Contingency (10%)	228,800
	Total	$ 2,516,800

Aerobic Digester Replacement

Mobilization	$ 75,000
Aerobic Digester Tanks	538,000
Belt Press and Thickener Building	485,000
Relocate existing belt press and feed pump	80,000
New Belt Thickeners and Pumps	249,000
Air Blowers	111,000
Piping	91,000
Screw Conveyors	125,000
Electric power and light	265,000
Site Paving, Grading, Seeding	49,000
Demolition of Existing Strucutures	80,000
Sub Total	$ 2,148,000
Contingency (10%)	214,800
Total	$ 2,362,800

Secondary Anaerobic Digester Rehab/Conversion and Primary Tank Sludge Pumping

Mobilization and Demobilization	$ 62,000
Sludge Boiler and Exchanger	210,000
Gas Holder Cover	512,000
Mixing System	93,000
Gallery Piping	198,600
Gas Controls and Waste Gas Burner	75,000
Circular Primary Tank Sludge Pumps	86,000
Primary Effluent Structure	3,000
Total	$ 1,239,600

Aeration Tanks 1-4 Rehabilitation

Mobilization and Demobilization	$ 41,700
Diffuse and Header	181,000
Air Supply Piping	95,300
Gates	146,000
Air and WAS Piping Meter and Valves	116,000

Controls DO and ORP Probes	60,000
Electrical and Wiring	111,000
Flow Tower Modifications	78,000
	Total $ 829,000

Total Project Cost $ 8,885,668

B. Schererville will finance the project with a 20-year loan from the State Revolving Fund (SRF) Loan Program at an interest rate to be determined at the time of loan closing. Monthly user rates and charges may need to be analyzed to determine if adjustments are required for loan repayment.

VI. DESCRIPTION OF EVALUATED ALTERNATIVES

Manhole Rehabilitation Project

No Action: The no action alternative will result in continued inflow and infiltration of storm water into the sanitary sewer collection system. As a result, the available capacity of the sanitary sewer system will be reduced, and sanitary sewer overflows (SSOs) will persist. Therefore, this alternative was not considered further.

Replacement: The complete replacement of existing manholes with new pre-cast concrete structures will require the use of heavy machinery and the bypass pumping of sanitary sewer flow. Due to the excessive cost and disruptive nature of this alternative, it was not considered further.

Rehabilitation: This alternative consists of rehabilitating manholes determined to be sources of inflow and infiltration. This alternative will not require the use of heavy machinery and is deemed more cost effective. For these reasons, this alternative was chosen.

Southeast Sanitary Interceptor Sewer – Project 2

No Action: The no action alternative would result in continued SSO events and a failure to comply with numerous IDEM Notice of Violations. For these reasons, this alternative was not considered further.

Replacement: The alternative involves the replacement of the existing lift station and force main with sufficient capacity to convey all sanitary sewer flow in the existing and future service area. This alternative would require continued operation and maintenance of a lift station. The gravity sewer at the discharge of the new lift station is not sufficient in size to handle the sanitary flow. For these reasons, this alternative was not considered further.

New Sanitary Interceptor Sewer: This alternative involves the construction of a new sanitary interceptor sewer in the service area. The alternative will reduce the operation and maintenance costs associated with a lift station, eliminate SSO events and sanitary sewer backups, and increase capacity for development in the existing and future service area. For these reasons, this alternative was chosen.

Headworks Improvements

No Action: The no action alternative would result in continued operation of the Schererville Wastewater Treatment Plant at current capacity. The grit removal, screening, and pumping processes all operate at a level well below current and future peak flow rates. This alternative would not achieve the desired goal of adequate peak flow capacity. For these reasons, this alternative was not considered further.

Rehabilitation and Expansion: This alternative involves the rehabilitation and expansion of the existing screen and grit removal facilities. However, the current facility relies on obsolete technology. A rehabilitation and expansion of the current facility would necessitate further reliance on this outdated technology. Therefore, this alternative was not considered further.

Headworks Replacement: Replacing the existing headworks facility would allow for design objectives to be met. Such a facility would provide adequate peak flow capacity for screening and grit removal, expand raw sewage pumping capacity, allow for pumping upgrades in the future, and provide standby peak flow capability for future peak flow estimates. For these reasons, this alternative was chosen.

Aerobic Digester Replacement

No Action: The no action alternative would result in continued operation of the existing aerobic digester. Due to the fact that the existing digester has inadequate capacity and is failing structurally, this alternative was deemed unacceptable.

Rehabilitation: This alternative would involve reusing the existing steel aerobic digester and adding a gravity belt thickener to reduce sludge volume and increase detention time for adequate stabilization. This alternative would necessitate the use of an aging converted steel package treatment facility in failing condition. This alternative was discarded due to concerns regarding the suitability of reusing the steel tank.

Aerobic Digester Replacement: This alternative consists of replacing the current digester with a new 4 cell covered reinforced concrete aerobic digester facility. The facility would include WAS storage, thickener, relocated belt press, and indoor truck or sludge loading. This alternative will address the long term need for WAS stabilization suitable for load application. For these reasons, this alternative was chosen.

Secondary Anaerobic Digester Rehabilitation/Conversion and Primary Tank Sludge Pumping Upgrades

No Action: The no action alternative would result in continued operation of the waste water treatment plant with severely inadequate primary anaerobic digester capacity. As a result the facility is plagued with poor gas production, poor volatile solids destruction, and an inability to meet Part 503 land application rules. For these reasons, this alternative was deemed infeasible.

New Primary Digester: This alternative consists of constructing a new primary anaerobic digester, including pipe gallery, piping, mixing system, cover and sludge boiler, and heat exchange. This alternative was not considered further because of the excessive construction costs associated.

Rehabilitation of Secondary Digester to Primary Digester: This alternative would include piping revisions, the addition of a mixing system, replacement of the existing gasholder cover, and replacement of the existing sludge boiler and heater. This alternative would expand digestion capacity at a modest cost. For these reasons, this alternative was chosen.

Aeration Tanks 1-4 Rehabilitation

No Action: The no action alternative would not allow for increased dissolved oxygen transfer efficiencies and therefore was rejected. The selected plan of replacing the entire air transfer system would increase this efficiency and therefore was selected.

VII. Environmental Impacts of the Feasible Alternatives

A. Direct Impacts of Construction and Operation

Undisturbed/Disturbed Land

Manhole Rehabilitation Project: The proposed project will be conducted on previously disturbed land.

Southeast Sanitary Interceptor Sewer – Project 2: The route of proposed project will be conducted on previously disturbed land.

WWTP – Headworks Improvements, Aerobic Digester Replacement, Secondary Anaerobic Digester Rehabilitation/Conversion and Primary Tank Sludge Pumping Upgrades, and Aeration Tanks 1-4 Rehabilitation: The proposed projects will be conducted on previously disturbed land or within existing structures.

Structural Resources

Manhole Rehabilitation Project: The proposed project will not affect any historic or architectural resources. See Figure A3.1.

Southeast Sanitary Interceptor Sewer – Project 2: The proposed project will not affect any historic or architectural resources. See Figure B4.1.

WWTP – Headworks Improvements, Aerobic Digester Replacement, Secondary Anaerobic Digester Rehabilitation/Conversion and Primary Tank Sludge Pumping Upgrades, and Aeration Tanks 1-4 Rehabilitation: The proposed projects will not affect any historic or architectural resources. See Figure B4.1.

Surface Waters and Wetlands

Manhole Rehabilitation Project: The proposed project will not adversely affect waters of high quality, exceptional use streams, natural, scenic, and recreational and streams, salmonid streams, or waters on the outstanding rivers list. The proposed project will not affect wetlands in the area. See Figure A5.

Southeast Sanitary Interceptor Sewer – Project 2: The proposed project will not adversely affect waters of high quality, exceptional use streams, natural, scenic, and recreational and streams, salmonid streams, or waters on the outstanding rivers list. The proposed project will not affect wetlands in the area. See Figure B2.

WWTP – Headworks Improvements, Aerobic Digester Replacement, Secondary Anaerobic Digester Rehabilitation/Conversion and Primary Tank Sludge Pumping Upgrades, and Aeration Tanks 1-4 Rehabilitation: The proposed projects will not adversely affect waters of high quality, exceptional use streams, natural, scenic, and recreational and streams, salmonid streams, or waters on the outstanding rivers list. The proposed projects will not affect wetlands in the area. See Figure C3.

100-Year Floodplain

Manhole Rehabilitation Project: The proposed project will not affect a flood zone or floodplain. See Figure A4.

Southeast Sanitary Interceptor Sewer – Project 2: A small portion of the proposed project will be conducted in a flood zone. The rims of all manholes constructed in this area will be at least a foot above the flood elevation. No dredging or filling will be performed as a part of this project; therefore no permit from the Indiana Department of Natural Resources is required. See Figure B3.

WWTP – Headworks Improvements, Aerobic Digester Replacement, Secondary Anaerobic Digester Rehabilitation/Conversion and Primary Tank Sludge Pumping Upgrades, and Aeration Tanks 1-4 Rehabilitation: The proposed projects will be conducted within a 100-year flood plain. All new facilities will be constructed above the 629 foot flood elevation. No dredging or filling will be performed as part of these projects; therefore no permit from the Indiana Department of Natural Resources is required. See Figure C2.

Groundwater

Manhole Rehabilitation Project: The proposed project will have no long term impact on ground water. The project is not located in any sole-source aquifer. Site dewatering is not expected to be required for this project. Should temporary dewatering be necessary, sediment control procedures will be implemented before discharge.

Southeast Sanitary Interceptor Sewer – Project 2: The proposed project will have no long term impact on ground water. The project is not located in any sole-source aquifer. Site dewatering is not expected to be required for this project. Should temporary dewatering be necessary, sediment control procedures will be implemented before discharge.

WWTP – Headworks Improvements, Aerobic Digester Replacement, Secondary Anaerobic Digester Rehabilitation/Conversion and Primary Tank Sludge Pumping Upgrades, and Aeration Tanks 1-4 Rehabilitation: The proposed projects will have no long term impact on ground water. The projects are not located in any sole-source aquifer. Site dewatering is not expected to be required for these projects. Should temporary dewatering be necessary, sediment control procedures will be implemented before discharge.

Plants and Animals

Manhole Rehabilitation Project: The construction and operation of the proposed project will not negatively impact state or federal-listed endangered species or their habitat. The project will be implemented to minimize the impact to non-endangered species and their habitat. Mitigation measures cited in comment letters from the Indiana Department of Natural Resources and the U.S. Fish and Wildlife Service will be implemented. The project site is clear of trees and vegetation except grass for erosion control. The site does not support wildlife.

Southeast Sanitary Interceptor Sewer – Project 2: The construction and operation of the proposed project will not negatively impact state or federal-listed endangered species or their habitat. The project will be implemented to minimize the impact to non-endangered species and their habitat. Mitigation measures cited in comment letters from the Indiana Department of Natural Resources and the U.S. Fish and Wildlife Service will be implemented. The project site is clear of trees and vegetation except grass for erosion control. The site does not support wildlife.

WWTP – Headworks Improvements, Aerobic Digester Replacement, Secondary Anaerobic Digester Rehabilitation/Conversion and Primary Tank Sludge Pumping Upgrades, and Aeration Tanks 1-4 Rehabilitation: The construction and operation of the proposed projects will not negatively impact state or federal-listed endangered species or their habitat. The project will be implemented to minimize the impact to non-endangered species and their habitat. Mitigation measures cited in comment letters from the Indiana Department of Natural Resources and the U.S. Fish and Wildlife Service will be implemented. The project site is clear of trees and vegetation except grass for erosion control. The site does not support wildlife.

Prime Farmland

Manhole Rehabilitation Project: The proposed project site has not been used for any agricultural purpose since at least 1980.

Southeast Sanitary Interceptor Sewer – Project 2: The proposed project site has not been used for any agricultural purpose since at least 1975.

WWTP – Headworks Improvements, Aerobic Digester Replacement, Secondary Anaerobic Digester Rehabilitation/Conversion and Primary Tank Sludge Pumping Upgrades, and Aeration Tanks 1-4 Rehabilitation: The proposed project site has not been used for any agricultural purposes since at least 1965.

Air Quality

Manhole Rehabilitation Project: The construction of the proposed project may involve some temporary air issues related to dust. The project specifications require mitigation of these impacts by measures such as watering and temporary seeding. The project will not create long term air quality issues. The project will have no impact on air standards compliance for ozone or other pollutants.

Southeast Sanitary Interceptor Sewer – Project 2: The construction of the proposed project may involve some temporary air issues related to dust. The project specifications require mitigation of these impacts by measures such as watering and temporary seeding. The project will not create long term air quality issues. The project will have no impact on air standards compliance for ozone or other pollutants.

WWTP – Headworks Improvements, Aerobic Digester Replacement, Secondary Anaerobic Digester Rehabilitation/Conversion and Primary Tank Sludge Pumping Upgrades, and Aeration Tanks 1-4 Rehabilitation: The construction of the proposed projects may involve some temporary air issues related to dust. The various project specifications require mitigation of these impacts by measures such as watering and temporary seeding. The project will not create long term air quality issues. The projects will have no impact on air standards compliance for ozone or other pollutants.

Open Space and Recreational Opportunities

Manhole Rehabilitation Project: The propose project will neither create nor destroy open space or recreational opportunities.

Southeast Sanitary Interceptor Sewer – Project 2: The propose project will neither create nor destroy open space or recreational opportunities.

WWTP – Headworks Improvements, Aerobic Digester Replacement, Secondary Anaerobic Digester Rehabilitation/Conversion and Primary Tank Sludge Pumping Upgrades, and Aeration Tanks 1-4 Rehabilitation: The proposed projects will neither create nor destroy open space or recreation opportunities.

The proposed projects will not affect National Natural Landmarks or the Lake Michigan Coastal Zone.

B. Indirect Impacts

The town's Preliminary Engineering Report (PER), as it relates to all proposed projects, states: *The Town of Schererville, through the authority of its council, planning commission or other means, will ensure that future development, as well as future collection system or treatment works projects connecting to SRF-funded facilities will not adversely impact archaeological/historical/structural resources, wetlands, wooded areas, or other sensitive environmental resources. The town will require new development and treatment works projects to be constructed within the guidelines of the U.S. Fish and Wildlife Service, IDNR, IDEM, and other environmental review authorities.*

C. Comments from Environmental Review Authorities

This document serves as the first notice to the U.S. Fish and Wildlife Service, The Indiana Department of Natural Resources Division of Historic Preservation and Archaeology, and the IDNR Environmental Unit.

The Natural Resources Conservation Service, in correspondence dated May 27, 2009 stated that the projects *will not cause a conversion of prime farmland.*

VIII. Mitigation Measures

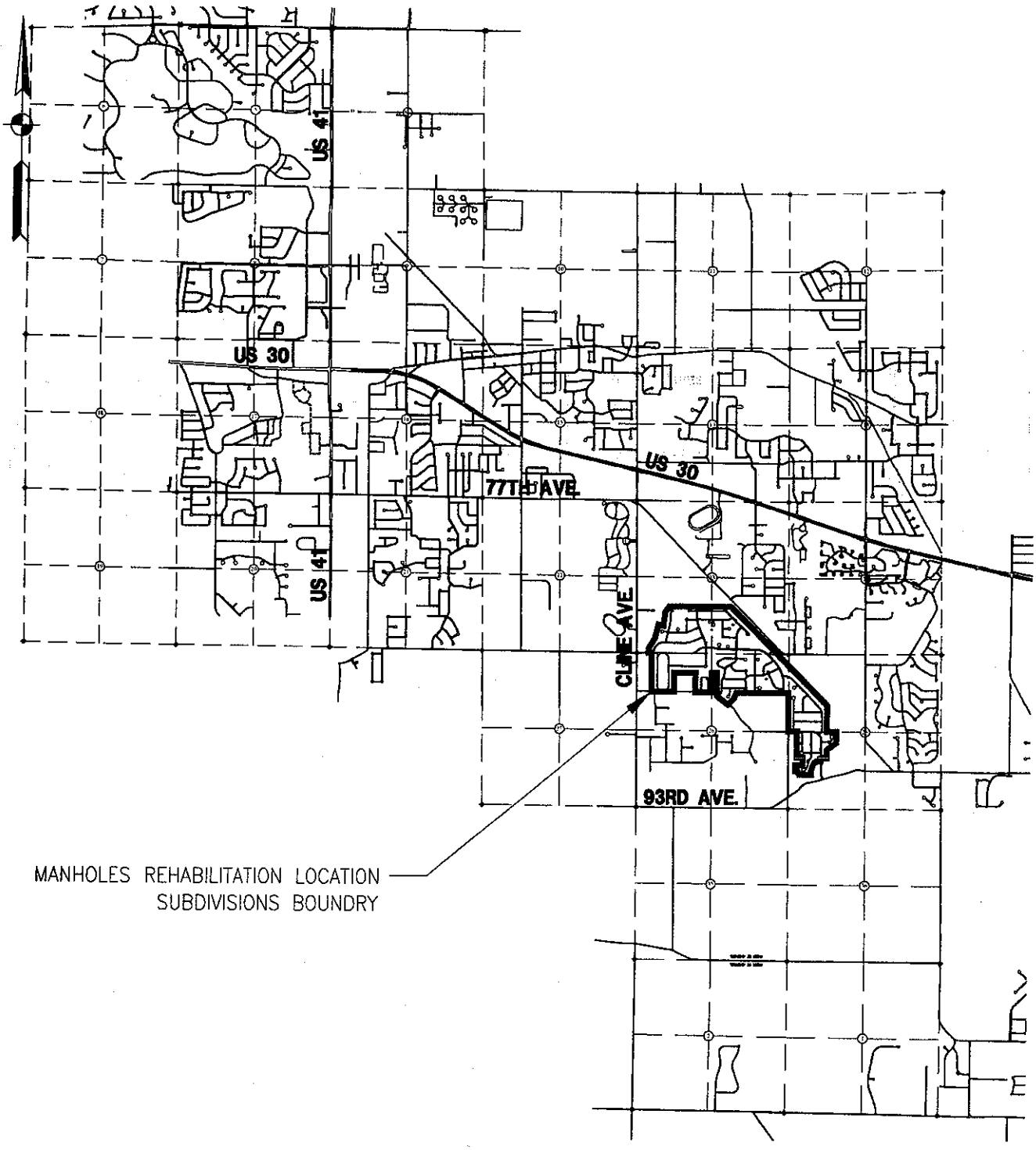
The town's PER states: *Mitigation measures cited in comment letters from the Indiana Department of Natural Resources and the U.S. Fish and Wildlife Service will be implemented.*

The project specifications require mitigation of these impacts by measures such as watering and temporary seeding.

IX. Public Participation

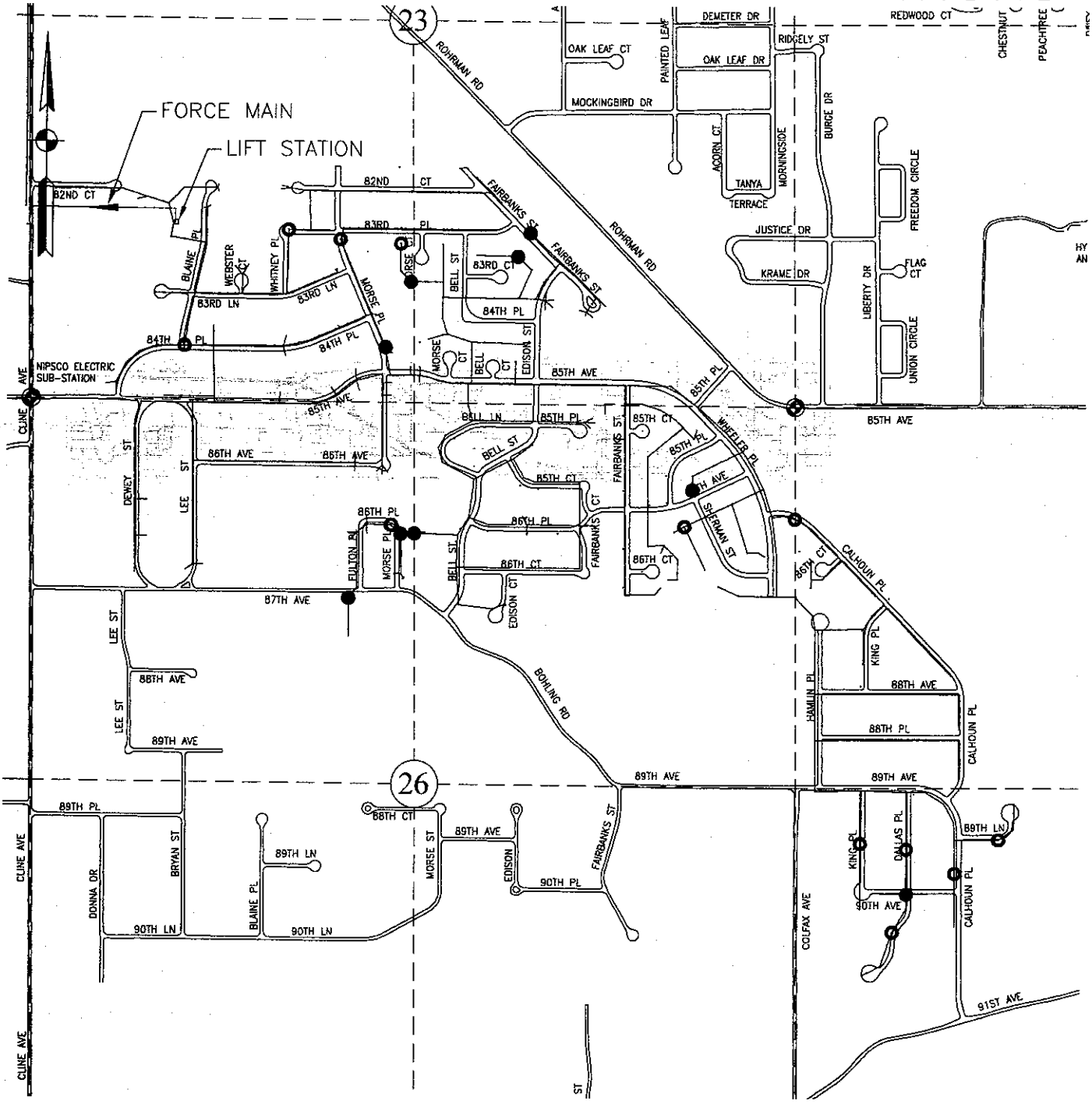
A properly noticed Public Hearing was held on May 27, 2009 at 6:00 pm at the Schererville Town Hall Meeting Room, 10 E. Joliet Street. There were no written comments received by the utility during the 5-day period following the public hearing.

MANHOLE REHABILITATION OVERALL MAP



SCALE	MANHOLE REHABILITATION FIGURE A1	NIES engineering, inc.
1"=5000'		2421 173rd Street, Hammond, Indiana. 46323 Phone: (219) 844 8680 Fax: (219) 844 7754 e-mail: mail@niesengineering.com Your Vision • Our Focus

MANHOLE REHABILITATION LOCATIONS



- 12 – MANHOLES TO REPAIR CASTING OR RAISE RIM TO GRADE
- 9 – MANHOLES TO REHABILITATE BY LINING WITH SILICONE MODIFIED POLYUREA BARRIER

1000' 0 500' 1000' 2000'

1" = 1000'–0"

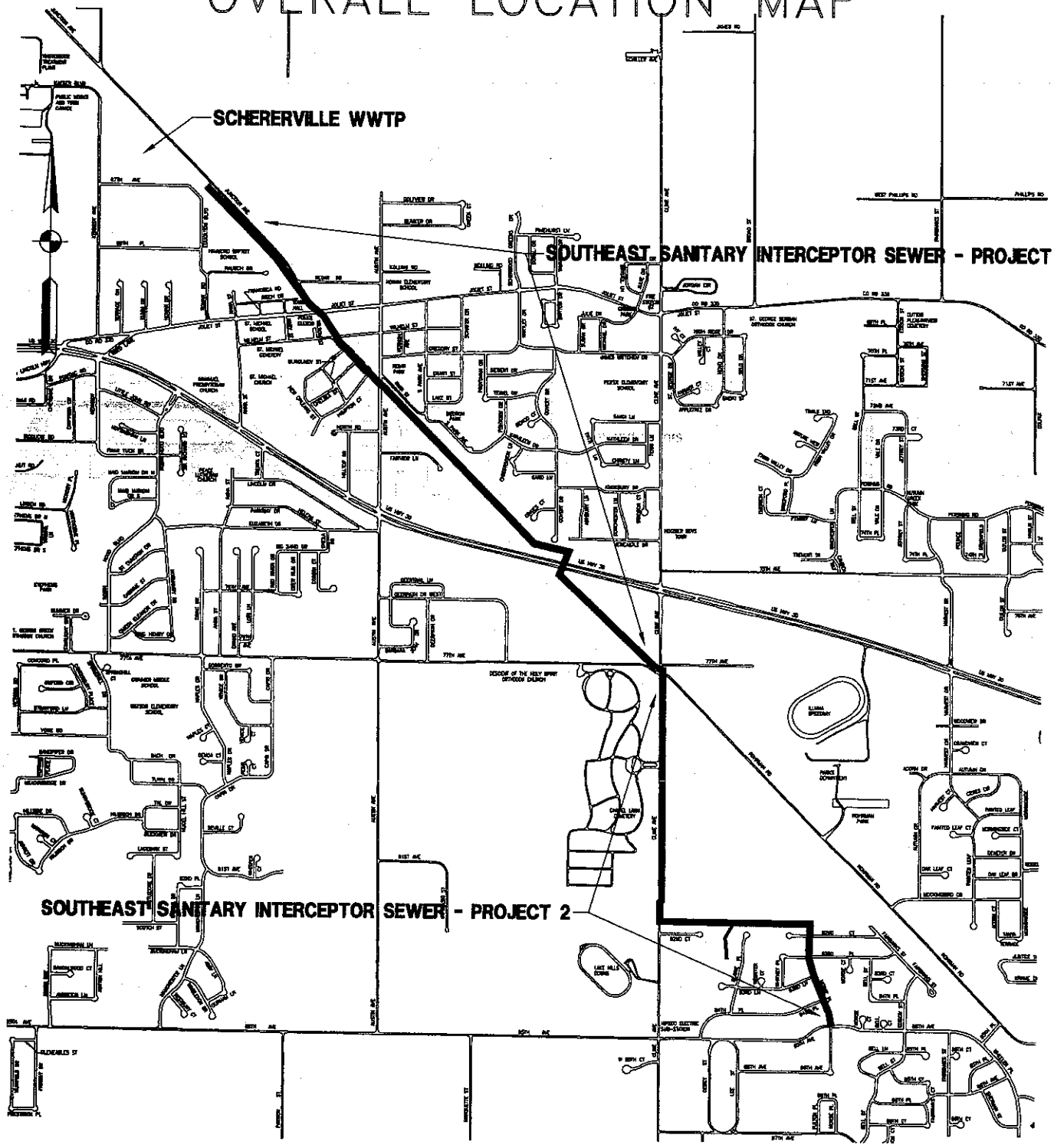
SCALE

1"=1000'

MANHOLE REHABILITATION FIGURE A2

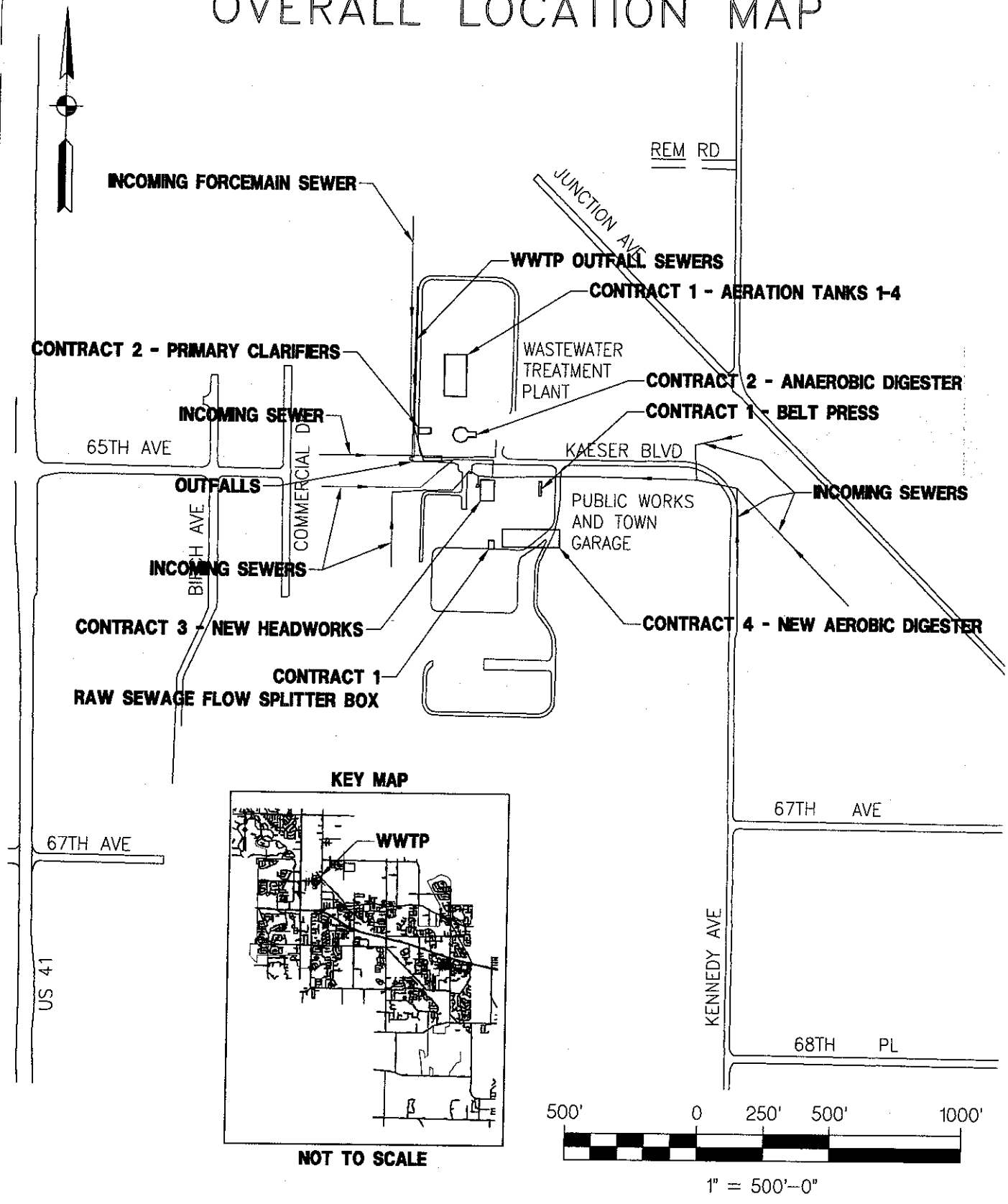
NIES engineering, inc.
2421 173rd Street, Hammond, Indiana. 46323
Phone: (219) 844 8680 Fax: (219) 844 7754
e-mail: mail@niesengineering.com
Your Vision • Our Focus

OVERALL LOCATION MAP



SCALE	SOUTHEAST SANITARY INTERCEPTOR SEWER FIGURE B1	NIES engineering, inc.
1"=2000'		2421 173rd Street, Hammond, Indiana. 46323 Phone: (219) 844 8680 Fax: (219) 844 7754 e-mail: mail@niesengineering.com Your Vision • Our Focus

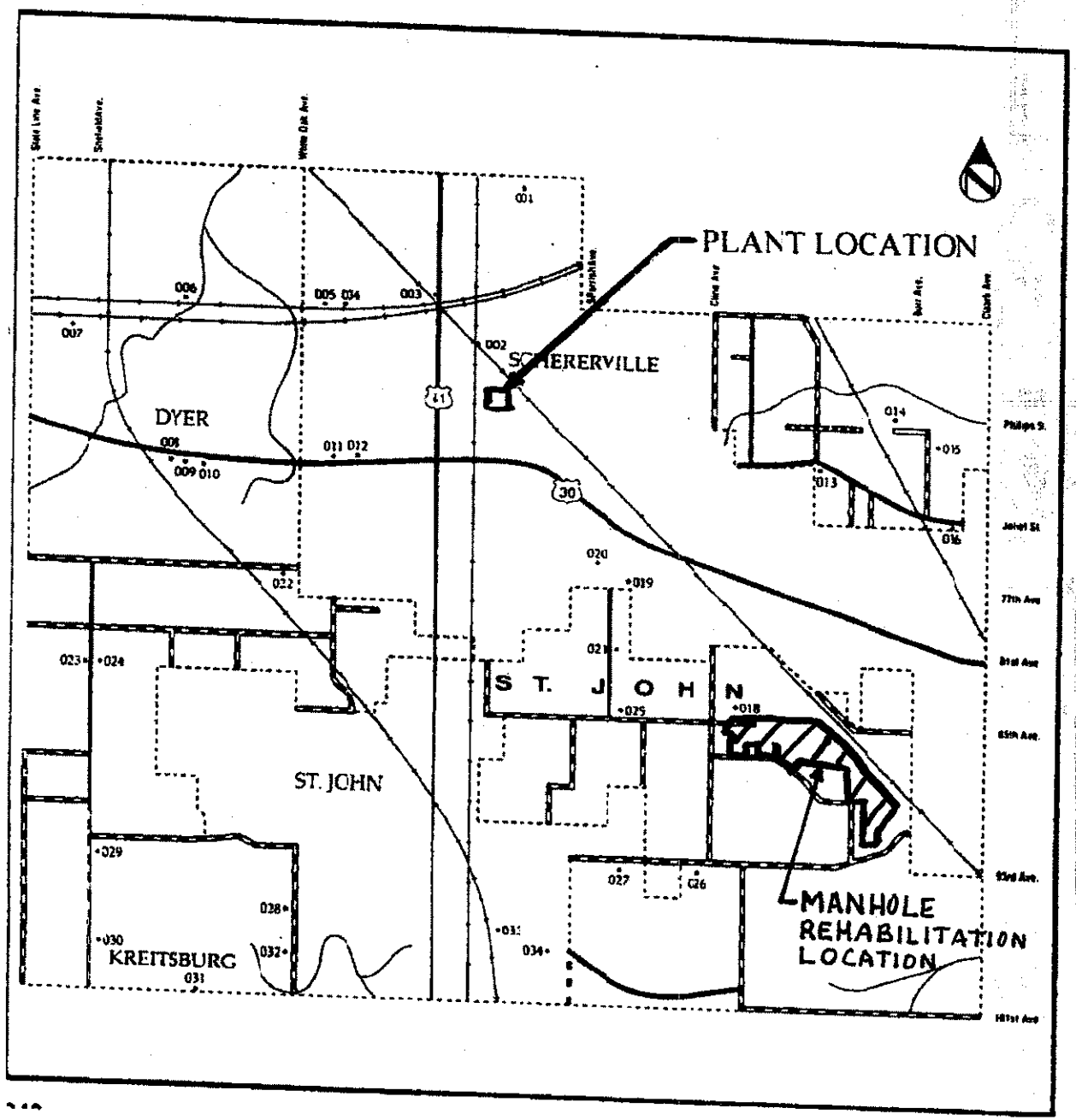
OVERALL LOCATION MAP



SCALE	SCHERERVILLE WWTP FIGURE C1	NIES engineering, inc.
1"=500'		2421 173rd Street, Hammond, Indiana. 46323 Phone: (219) 844 8680 Fax: (219) 844 7754 e-mail: mail@niesengineering.com Your Vision • Our Focus

FIGURE 1

St. John Township (60001-034)



St. John Township is located in the northwestern section of Lake County. The township was formed from a section of neighboring Center Township in 1848 and was named for the early village of St. John. The township's terrain is generally level with fertile soil, which contributed to the area's long agricultural heritage. This rich farming land attracted large numbers of German immigrants so that St. John Township was soon recognized as being the center of the county's German community.

Three communities were established in the township. St. John, the earliest of the three, was founded in 1837 and developed as a center for the area's German Catholics. Dyer, platted in 1858, and Schererville, established in 1866 by a German immigrant, developed as a result of the area's railroad expansion. All three of these towns maintain their distinct identity despite the township's rapid suburban development during the past decades.

Although St. John Township has experienced a large amount of commercial and residential growth as the county's urban centers expand to the south, vestiges of the area's agricultural history are found scattered throughout the township. Late nineteenth century farmsteads such as the Vander Woudie Farm (60006) and the farm at 8417 Sheffield Avenue (60024) are among the township's few surviving historic farms from this period. Oak Lane Farms (60018), the Buchmeier Farm (60031) and the farm at 9740 White Oak Avenue (60032) are representative of the township's early twentieth century farmsteads.

What was known as the Sauk Trail, an early settlement route linking Rock Island, Illinois, and Detroit, passed through the northern section of the township. The trail's route was followed when the Lincoln Highway was constructed through the county during the early 1920s. A historical marker along what is now US 30 (60009), notes that a part of the road, known as the "Ideal Section of the Lincoln Highway," was the finest section of road in the

FIGURE A3.1

HISTORIC SITE AND STRUCTURES

FIGURE 1

St. John Township (60001-034)

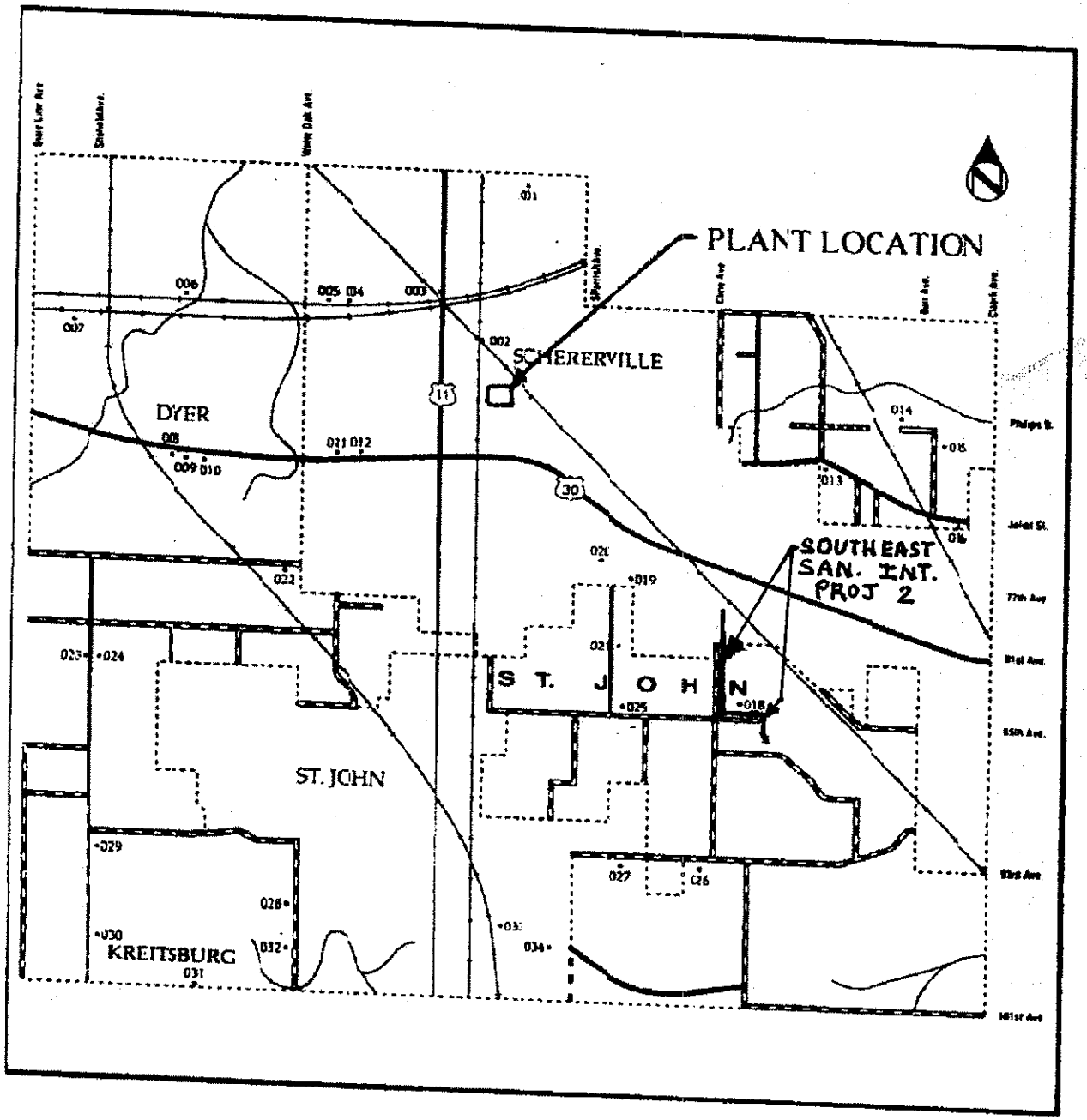


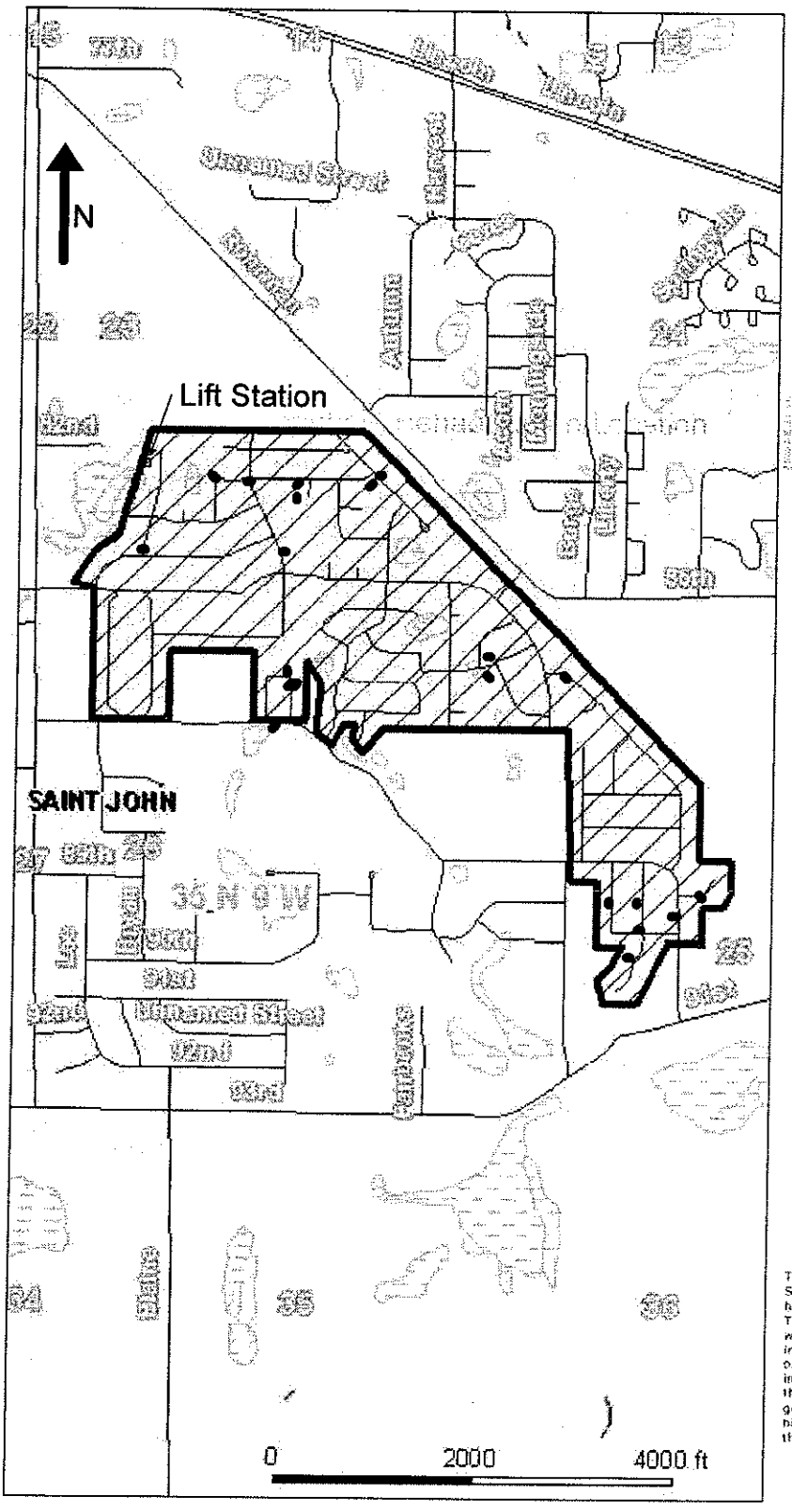
FIGURE B4.1

St. John Township is located in the northwestern section of Lake County. The township was formed from a section of neighboring Center Township in 1848 and was named for the early village of St. John. The township's terrain is generally level with fertile soil, which contributed to the area's long agricultural heritage. This rich farming land attracted large numbers of German immigrants so that St. John Township was soon recognized as being the center of the county's German community.

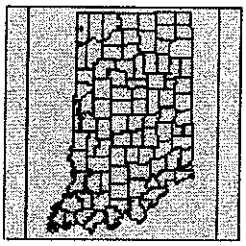
Three communities were established in the township. St. John, the earliest of the three, was founded in 1837 and developed as a center for the area's German Catholics. Dyer, platted in 1858, and Schererville, established in 1866 by a German immigrant developed as a result of the area's railroad expansion. All three of these towns maintain their distinct identity despite the township's rapid suburban development during the past decades.

Although St. John Township has experienced a large amount of commercial and residential growth as the county's urban centers expand to the south, vestiges of the area's agricultural history are found scattered throughout the township. Late nineteenth century farmsteads such as the Vander Woudie Farm (60006) and the farm at 8417 Sheffield Avenue (60024) are among the township's few surviving historic farms from this period. Oak Lane Farms (60018), the Buchmeier Farm (60031) and the farm at 9740 White Oak Avenue (60032) are representative of the township's early twentieth century farmsteads.

What was known as the Sauk Trail, an early settlement route linking Rock Island, Illinois, and Detroit, passed through the northern section of the township. The trail's route was followed when the Lincoln Highway was constructed through the county during the early 1920s. A historical marker along what is now US 30 (60009), notes that a part of the road, known as the "Ideal Section of the Lincoln Highway," was the finest section of road in the



Manhole Rehabilitation Location



Legend

Wetland Points

Roads (TeleAtlas- labeled)

Wetland Lines

Wetlands

Note:

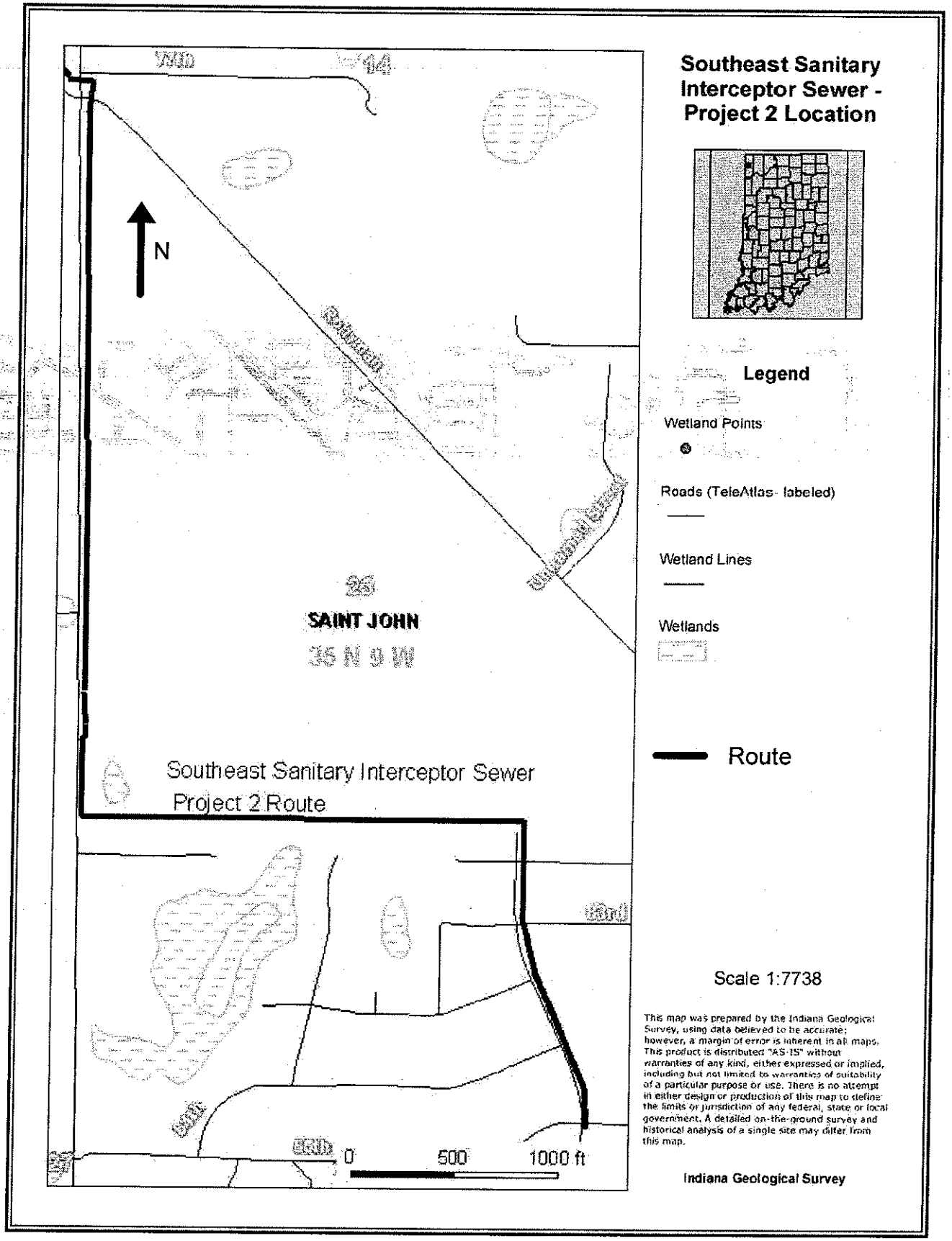
- Manhole Rehabilitation Locations

Scale 1:20989

Indiana Geological Survey

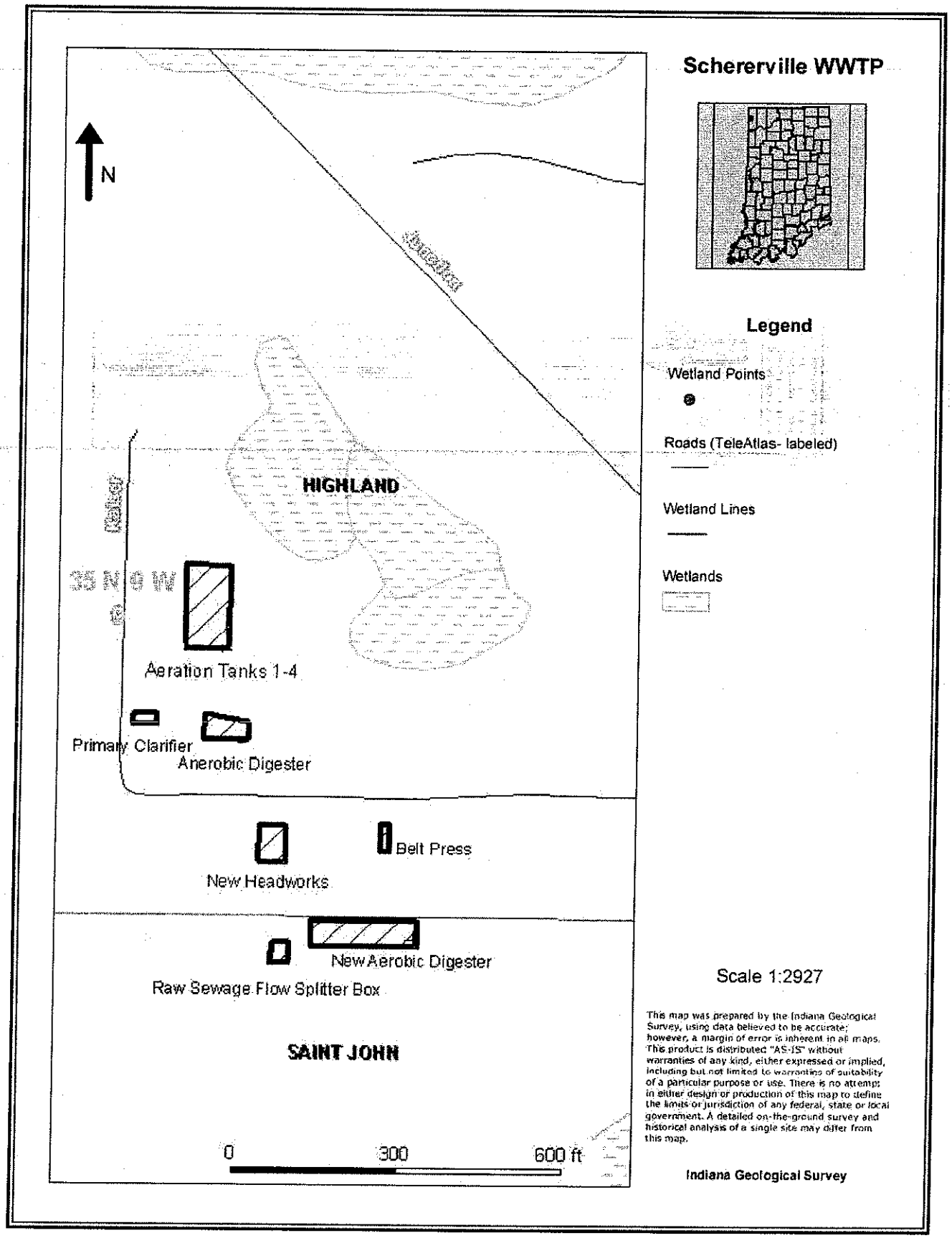
http://inmap.indiana.edu/servlet/com.esri.esrimap.Esrimap?ServiceName=statewideIndex...

FIGURE A5



http://inmap.indiana.edu/servlet/com.esri.esrimap.Esrimap?ServiceName=statewideIndex...

FIGURE B2

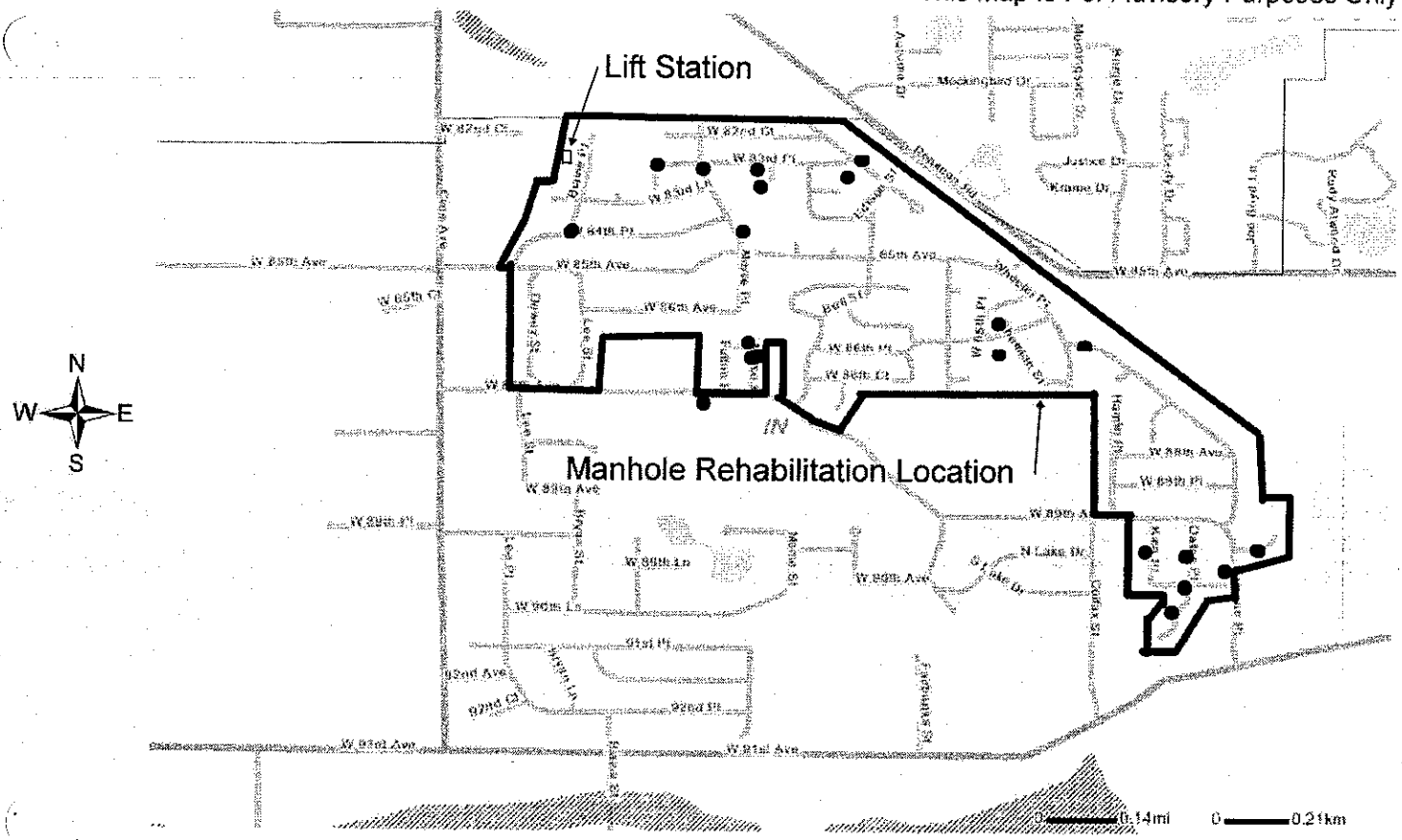


http://inmap.indiana.edu/servlet/com.esri.esrimap.Esrimap?ServiceName=statewideIndex...

FIGURE C3

Mapping Information Platform

This Map Is For Advisory Purposes Only



Legend

Cities
- Other Places
- Small Towns
- Small Cities
- State Largest Cities
- Major Cities
- Computed LOMAs
- National Communities
- LOMR's
- DFIRM Panels
- Bench Marks
- Political Jurisdictions
- Water Body
- Floodways
- Flood Hazard Zone Boundaries
- Q3 Flood Hazards
- Special Flood Hazard Areas

Flood Hazard Zones
- Zone A
- Zone AE
- Zone AH
- Zone AO
- Zone AR
- Zone A99
- Zone V
- Zone VE
- Zone D
- 0.2% Annual Chance Flood Hazard Zone

Streets
- Streets
- Major Roads
- Highways
- Major Highways
- States
- Lakes, Major Rivers

Land Areas
- US
- Other Countries

Notes:

Manhole Rehabilitation Area is outside the 100 year Flood Plain

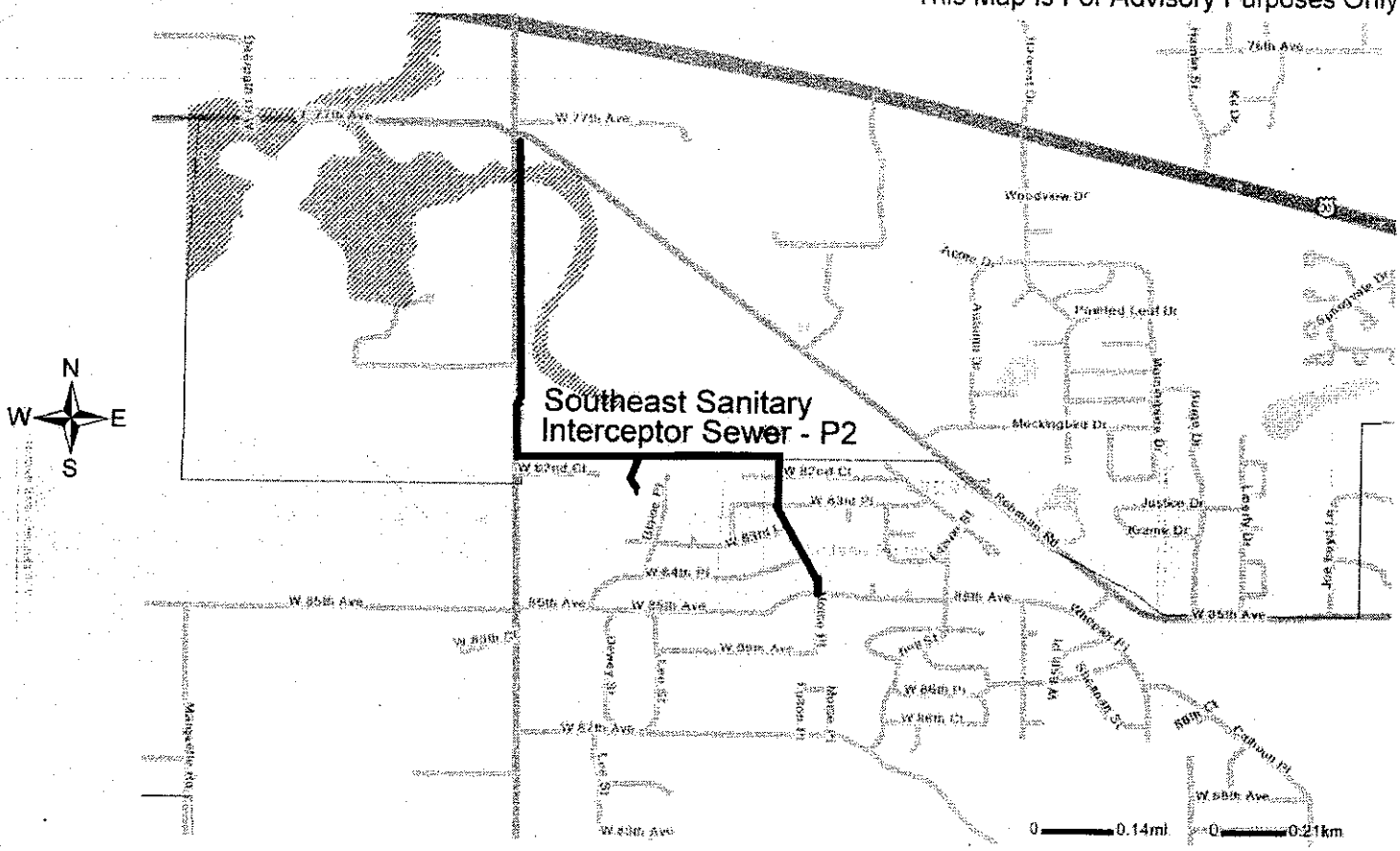
- Manhole Rehabilitation Locations

FEMA

FIGURE A4

Mapping Information Platform

This Map Is For Advisory Purposes Only



Legend

Cities
- Other Places
- Small Towns
- Small Cities
- State Largest Cities
- Major Cities
- Completed LOMAs
- National Communities
- LOMR's
- DFIRM Panels
- Bench Marks
- Political Jurisdictions
- Water Body
- Floodways
- Flood Hazard Zone Boundaries

Q3 Flood Hazards
- Special Flood Hazard Areas

Flood Hazard Zones
- Zone A
- Zone AE
- Zone AH
- Zone AO
- Zone AR
- Zone A99
- Zone V
- Zone VE
- Zone D
- 0.2% Annual Chance Flood Hazard Zone

Streets
- Streets
- Major Roads
- Highways
- Major Highways
- States
- Lakes, Major Rivers

Land Areas
- US
- Other Countries

Route

FEMA

FIGURE B3

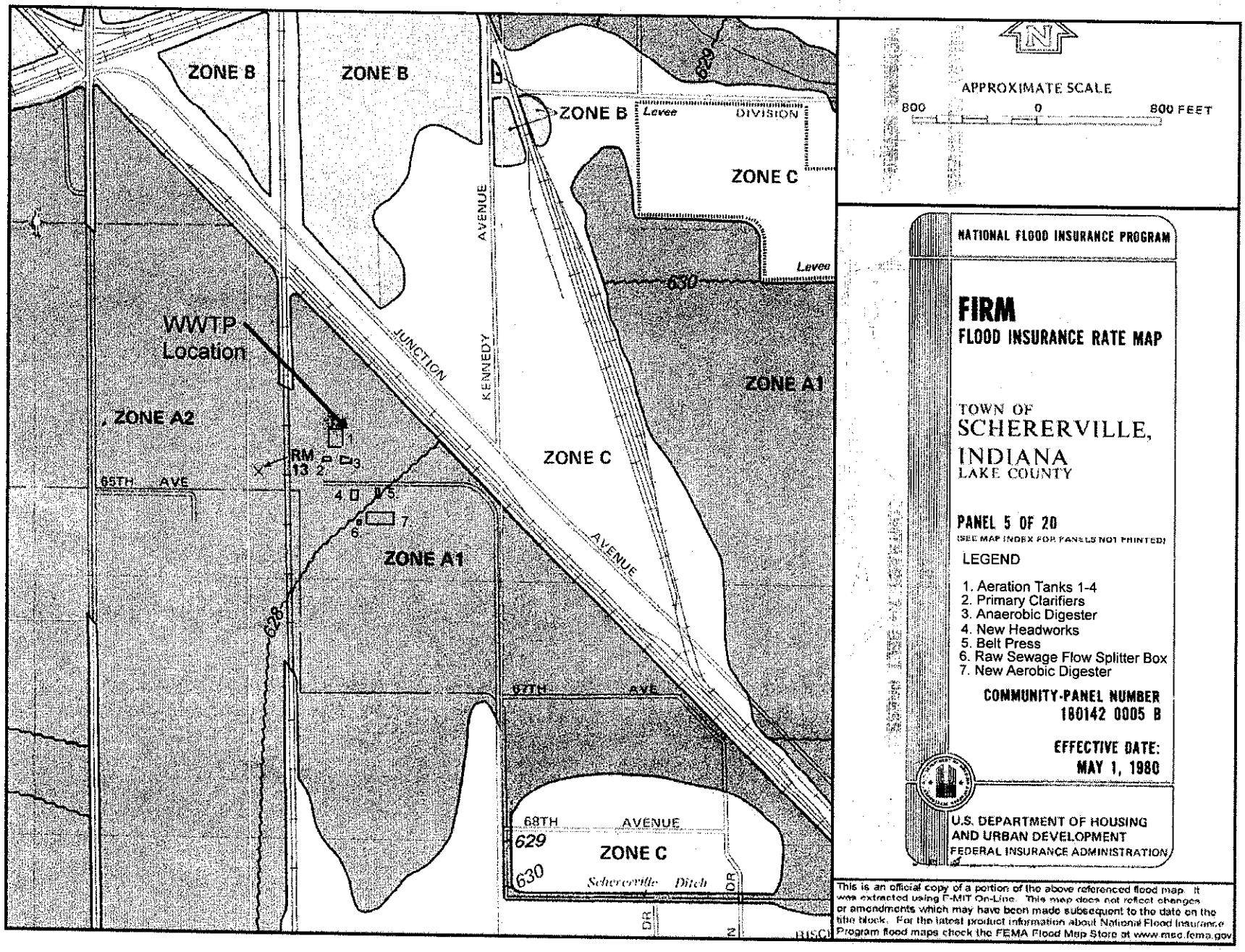

ZONE B
ZONE B
ZONE B
Levee
DIVISION
ZONE C
629
630
Levee
KENNEDY AVENUE
JUNCTION AVENUE
WWTP Location
ZONE A2
ZONE A1
ZONE C
65TH AVE
RM 13
1
2
3
4
5
6
7
628
67TH AVE
68TH AVENUE
629
630
ZONE C
Schererville Ditch
DR
APPROXIMATE SCALE
800 0 800 FEET
NATIONAL FLOOD INSURANCE PROGRAM
FIRM
FLOOD INSURANCE RATE MAP
TOWN OF
SCHERERVILLE,
INDIANA
LAKE COUNTY
PANEL 5 OF 20
(SEE MAP INDEX FOR PANELS NOT PRINTED)
LEGEND
1. Aeration Tanks 1-4
2. Primary Clarifiers
3. Anaerobic Digester
4. New Headworks
5. Belt Press
6. Raw Sewage Flow Splitter Box
7. New Aerobic Digester
COMMUNITY-PANEL NUMBER
180142 0005 B
EFFECTIVE DATE:
MAY 1, 1980
U.S. DEPARTMENT OF HOUSING
AND URBAN DEVELOPMENT
FEDERAL INSURANCE ADMINISTRATION
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

FIGURE C2